



Fleece Performance Engineering, Inc.  
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## **Fleece Performance Turbocharger Warranty**

Fleece Performance Engineering (FPE) develops and manufactures turbochargers for the diesel performance industry. Throughout the design, validation, and manufacturing process FPE turbochargers are tailored to the high performance diesel community. FPE stands behind its line of turbochargers and is confident that when integrated in the appropriate application they will live a long and successful life. FPE also understands that the high performance industry will inherently push hardware to its failure point.

Turbochargers carry a ONE YEAR, UNLIMITED MILES (1 yr/Unlimited mile) non-transferable, limited parts only replacement Warranty. This Warranty shall not apply to any turbo that has been improperly stored or installed. This Warranty shall not apply to misapplication, improper operating conditions, accidents, or neglect. This Warranty shall not apply to a turbo that has been improperly repaired, maintained and/or altered by the owner or his technician. Damage due to plugged oil return lines, thrust bushing/bearing damage due to excessive turbo speed, and/or insufficient/improper oil supply is not covered under this warranty. This warranty does not cover a failure resulting from foreign objects (debris). However, in the event of a failure, Fleece Performance will inspect the turbo for damage and charge the consumer only for hard parts replaced.

To return a turbocharger for warranty you must obtain an RMA number from FPE and return the completed RMA with your turbocharger within one year of receipt. FPE will perform a failure analysis on the turbocharger to determine the root cause of failure. If it is determined that our workmanship caused the failure, the turbo will be repaired or you will be provided with a replacement turbocharger. Fleece Performance does not reimburse for labor or other installation cost in the event of a warranty situation.

Please follow the checklist on the backside of this sheet for installation instructions and tips.

## **CHECKLIST FOR INSTALLING TURBOCHARGERS**

- 1. Inspect the intake and exhaust system leading to and from the turbocharger to ensure they are free of debris. Small particles can cause severe damage at high speeds**
- 2. Use new gaskets at all air, oil, and exhaust connections.**
- 3. Use high temperature anti-seize compound on all threaded fasteners connected to the turbocharger**
- 4. Ensure drain port tilt is no more than 20 degrees from the bottom center in either direction. Excessive tilt can create leakage on both the turbine and compressor seals**
- 5. Fill the oil inlet port with clean engine oil before connecting the oil feed hose to the turbocharger**
- 6. If the clamp tabs or V-band are loosened for orientation of the compressor cover or turbine housing, be certain that the mating flanges are tightly resealed, and that the fasteners are retightened. Complete the orientation of the cover and housing before making any rigid connections to the compressor inlet or outlet: this will make certain that all piping aligns with the turbocharger: this will ensure the external stresses on the turbocharger are minimal.**
- 7. Before connecting the oil drain hose, crank the engine without starting it until a steady stream of oil flows from the drain port**
- 8. Operate the engine at low idle for at least three minutes after completing the installation of any turbocharger. This will prevent oil starvation damage to the bearing system and will tend to purge any residual contaminants from the bearings housing.**

## **FACTORS AFFECTING TURBOCHARGER SERVICE LIFE**

**An analysis of turbochargers indicated that approximately 40% of the failures are due to foreign material going through either the turbine or the compressor. An additional 40% are due to lubrication issues. The remaining 20% are of a miscellaneous nature. Some of the foreign material damage is the result of pieces of burned or broken valves, improperly installed gaskets, casting fins that may break out of the manifold, pieces of the air cleaner, and in small cases nuts or bolts that were dropped into the intake system. Undersized or plugged oil lines are the most common lubrication issue. It is essential to have an adequate supply of oil at full engine oil pressure.**